



Patent  
Attorney's Docket No. 030681-305

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Jin-ho LEE et al.

Application No.: 09/873,382

Filed: June 5, 2001

For: MICRO-ACTUATOR AND  
MANUFACTURING METHOD  
THEREOF

)  
)  
) Group Art Unit: 2834

)  
) Examiner: K. I. Tamai

)  
) Confirmation No.: 4610

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INFORMATION DISCLOSURE STATEMENT  
TRANSMITTAL LETTER

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Enclosed is an Information Disclosure Statement and accompanying form PTO-1449 for the above-identified patent application.

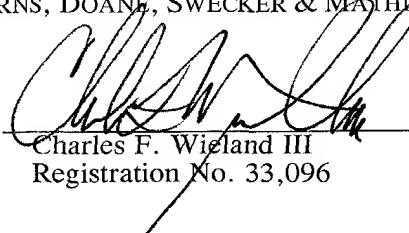
- ☒ No additional fee for submission of an IDS is required.
- ☐ The fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) is also enclosed.
- ☐ A statement under 37 C.F.R. § 1.97(e) is also enclosed.
- ☐ A statement under 37 C.F.R. § 1.97(e), and the fee of \$180.00 (1806) as set forth in 37 C.F.R. § 1.17(p) are also enclosed.
- ☐ Charge \$\_\_\_\_\_ to Deposit Account No. 02-4800 for the fee due.
- ☐ A check in the amount of \$\_\_\_\_\_ is enclosed for the fee due.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

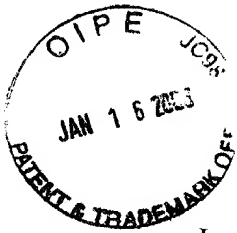
Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

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By:   
Charles F. Wieland III  
Registration No. 33,096

Date: January 16, 2003



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Filed: June 5, 2001 ) Confirmation No.: 4610  
For: MICRO-ACTUATOR AND )  
MANUFACTURING METHOD )  
THEREOF )

**SECOND  
INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. § 1.56, Applicants hereby submit the following information in conformance with 37 C.F.R. §§ 1.97 and 1.98. Pursuant to 37 C.F.R. § 1.98, a copy of each of the documents cited is enclosed.

I, the undersigned, hereby state that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.

This Information Disclosure Statement contains information which is not in the English language but was cited in a search report or other action by a foreign patent office in a counterpart foreign application. In accordance with M.P.E.P. § 609A(3) an English language version of the search report or action which indicates the degree of relevance found by the foreign office is being submitted herewith.

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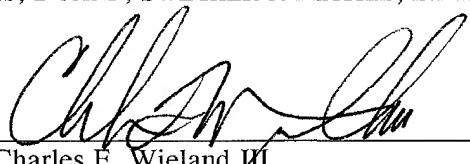
To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner-initialed copy of this form be returned to the undersigned.

Respectfully submitted,

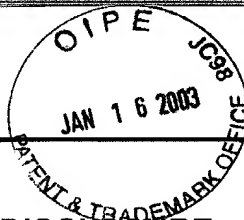
BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: January 16, 2003

By:

  
\_\_\_\_\_  
Charles F. Wieland III  
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Substitute for forms 1449A/PTO &amp; 1449B/PTO

**SECOND INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**ATTORNEY'S DKT No.  
030681-305APPLICATION No.  
09/873,382APPLICANT  
Jin-ho LEE et al.FILING DATE  
June 5, 2001GROUP  
2834**U.S. PATENT DOCUMENTS**

Examiner Initials	Document Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Issue/Publication Date (MM-DD-YYYY)
	5,668,033		Ohara et al.	09-16-1997
	6,424,504		Abe et al.	07-23-2002

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	Document Number	Kind Code (if known)	Country	Date of Publication (MM-DD-YYYY)	Translation Yes No
	2000-11556		Japan	01-14-2000	abs
	5-302182		Japan	11-16-1993	abs
	197 44 292		Germany	04-23-1998	
	1 020 984		Europe	07-19-2000	

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	P.F. INDERMUEHLE et al.; Design and Fabrication of an Overhanging xy-microactuator with Integrated Tip for Scanning Surface Profiling; May 1, 1994; pages 346-350; Vol. A43, No. 1/3; Sensors and Actuators A, Elsevier Sequoia S.A., Lausanne, Switzerland

Examiner Signature		Date Considered	
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. **SEND TO:** Assistant Commissioner for Patents, Washington, DC 20231.



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Patentamt

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Recherchen-  
abteilung

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Office européen  
des brevets

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E. & F. SEVENOAKS

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Datum/Date

27.11.02

Zeichen/Ref./Réf.

SKG/G17084EP

Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°.

01305088.5-1524-

Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire

SAMSUNG ELECTRONICS CO., LTD.

## COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

☒ abstract

☒ title

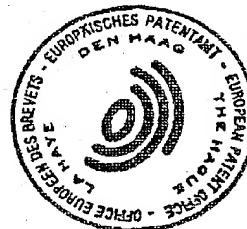
☐ The abstract was modified by the Search Division and the definitive text is attached to this communication.

The following figure will be published together with the abstract:

1

## REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	INDERMUEHLE P-F ET AL: "DESIGN AND FABRICATION OF AN OVERHANGING XY-MICROACTUATOR WITH INTEGRATED TIP FOR SCANNING SURFACE PROFILING" SENSORS AND ACTUATORS A, ELSEVIER SEQUOIA S.A., LAUSANNE, CH, vol. A43, no. 1/3, 1 May 1994 (1994-05-01), pages 346-350, XP000454132 ISSN: 0924-4247 * figures 1,2 * * paragraphs '02.1!', '0003! *	1,3,8	B81B3/00
Y		2,9	
A		4-7, 10-17	
Y	US 5 668 033 A (KANAMORI KATUHIKO ET AL) 16 September 1997 (1997-09-16) * figure 11 * * column 8, line 32 - line 52 *	2,9	
A	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 04, 31 August 2000 (2000-08-31) -& JP 2000 011556 A (ALPS ELECTRIC CO LTD; ESASHI MASAKI), 14 January 2000 (2000-01-14) * abstract * * figures 1-6 * -& US 6 424 504 B1 (M ABE ET AL) 23 July 2002 (2002-07-23) * figures 1-17 * * column 6, line 33 - column 9, line 48 * * column 11, line 25 - column 15, line 17 * * ----- -/--	1-17	TECHNICAL FIELDS SEARCHED (Int.Cl.7)  B81B B81C H02N H01H
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 14 November 2002	Examiner Polesello, P
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	

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EPO FORM 1503 03.82 (P04C01)



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)
A	DE 197 44 292 A (INST MIKRO UND INFORMATIONSTEC) 23 April 1998 (1998-04-23) * figures 1-5 * * column 3, line 32 - column 7, line 27 * ----	1-17	
A	EP 1 020 984 A (SAMSUNG ELECTRONICS CO LTD) 19 July 2000 (2000-07-19) * figure 4 * * paragraph '0020! * ----	1-17	
A	PATENT ABSTRACTS OF JAPAN vol. 018, no. 107 (C-1169), 22 February 1994 (1994-02-22) -& JP 05 302182 A (FUJI ELECTRIC CO LTD), 16 November 1993 (1993-11-16) * abstract * * figures 1-10 * -----	1-17	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.CI.7)
Place of search BERLIN		Date of completion of the search 14 November 2002	Examiner Polesello, P
<div>CATEGORY OF CITED DOCUMENTS</div> <div>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</div> <div>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- &amp; : member of the same patent family, corresponding document</div>			

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 30 5088

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

14-11-2002

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5668033	A	16-09-1997	JP	8316497 A	29-11-1996
			DE	19619921 A1	05-12-1996
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